

## **GOLD AND FINANCIAL ASSETS: ARE THERE ANY SAFE HAVENS IN BEAR MARKETS?**

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### **NON-TECHNICAL SUMMARY**

The current crisis has clearly renewed the interest in gold as a possibly good investment in times of financial turmoil. Indeed, the surge in the price of gold while stocks prices plummeted in 2008 hints at a safe haven role. A safe haven can be broadly defined as an asset allowing the preservation of wealth during periods of financial turmoil. After having reviewed several possible definitions, we go for characterizing safe havens by their negative correlations with risky assets specifically during crises.

We then argue that gold can qualify for being a safe haven for several reasons. To start with, its image to the public, as well as to investors, makes it an ultimate resort in very troubled times, as it still owes to its historical role as a standard of exchange in the international monetary system along the centuries. Furthermore, gold is a liquid asset, continuously quoted on spot and futures markets and easy to trade. It is also an international asset, the value of which is independent of the decision of a particular State. Last but not least, gold does not co-move with stocks in case of extremely negative returns on stocks, according to recent papers by Baur and Lucey (2010) and Baur and McDermott (2010).

We take stock of these former papers and try to extend their results mainly in three ways. First, we identify crisis periods by exogenous methods, considering successively recessions and bear stock markets. As regards to recessions, we use the NBER dating procedure. Commodity futures have been shown to outperform stocks during recessions (Gorton and Rouwenhorst, 2006). We find that this result is also true for gold on average. As regards to bear markets, we split bear and bull periods on the US stock market by applying the algorithm proposed by Pagan and Sossounov (2003). Second, we choose a model allowing for time varying conditional covariances between gold and stocks returns. We estimate it on monthly data for gold and several stock market indices (France, Germany, UK, US, G7) over the period 1978:2-2009:1. Third, we test for long run relationships between gold and stocks, and check if these relationships can be used to construct a hedged portfolio able to weather crises.

In the short run we find that the correlation between gold and stocks is close to zero during recessions. This qualifies gold for being a “weak safe haven”. This null correlation means an

absence of co-movement with stocks, which is an interesting property during crises. Indeed, a more interesting property would be to have significantly negative correlations, which would qualify the asset for being a “strong safe haven”. We do find this property for gold during bear markets, if we consider the US stocks and the G7 stocks as a whole. A closer look at the data shows that these results only hold on average, but not for every crisis period in every country. In the longer run, we find a negative relationship between gold and three stock markets (France, UK, US) and the speed of reversal towards this long run relationship increases during crises. Therefore gold appears as a hedge for stocks in the long run and the reversal towards this long run equilibrium not only holds, but increases during crises. However, using this long run relationship to construct a hedged portfolio - mixing gold and stocks - does not allow to overperform constantly an undiversified portfolio of stocks only during all crises. Overall, gold appears as an interesting asset to diversify away from stocks, but remains a risky investment.

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